



Applicant name: Baokang Bi
Application No.: 10/707,257, filed on December 1, 2003
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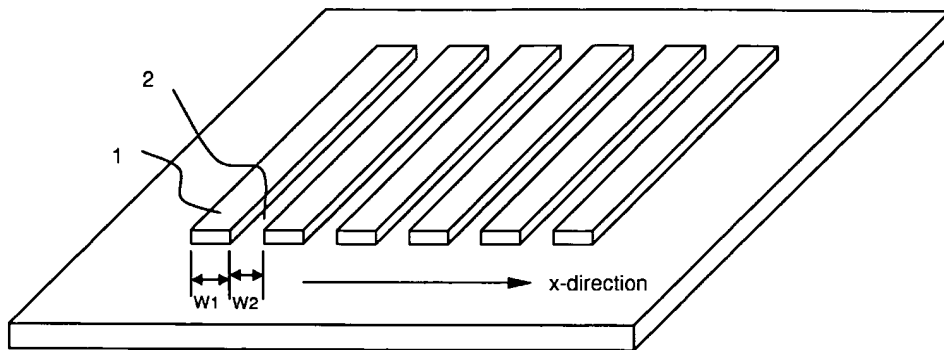


Figure 1a. A perspective view of a diffractive grating consisting of the repetitive elongated Element 1 and 2. The total width of the 2 elements $W1 + W2 = \text{constant}$.

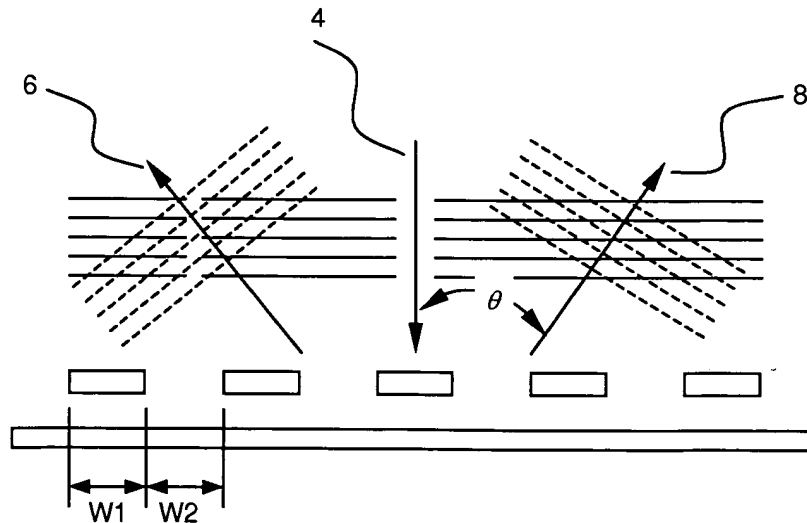


Figure 1b. A diffractive grating diffracts the incoming wave 4 into +1 order plane wave 6 and -1 order plane wave 8.

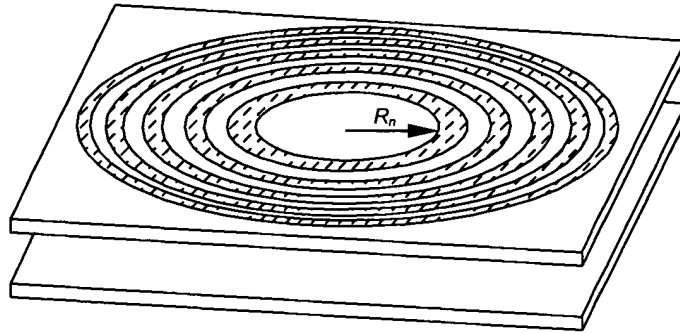


Figure 2a. A Fresnel zone plate where R_n , the radius of the n th zone, is determined by the zone plate equation.

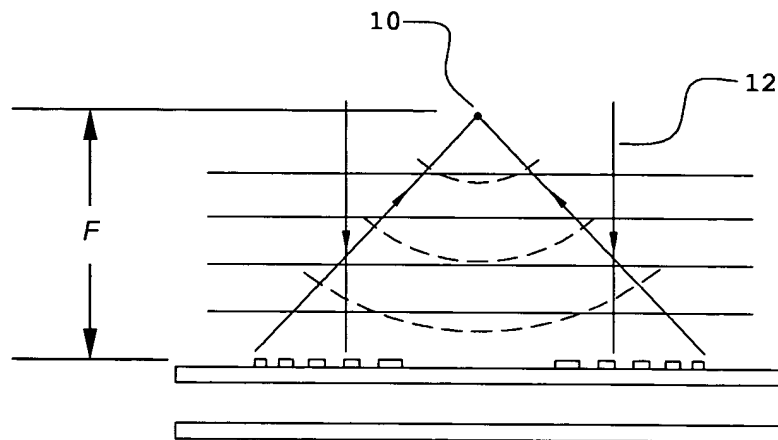


Figure 2b. A Fresnel zone plate functions as a lens and focuses the incoming wave 12 into a focal point 10. F is the focal point of the zone plate.

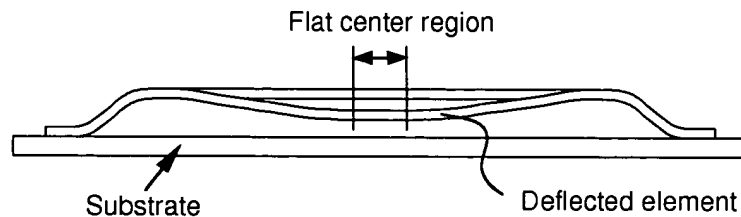


Figure 3a. A diffractive grating modulator in the deflected state. Only the small central region of the deflected element can be used for diffracting waves.

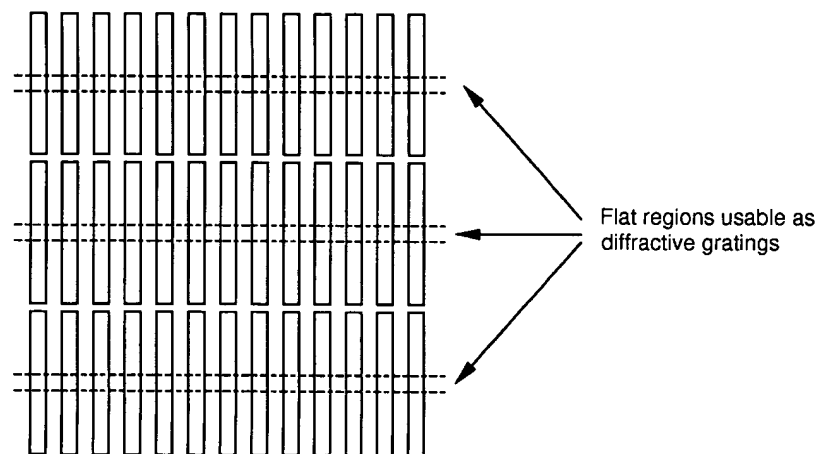


Figure 3b. Top view of an example two-dimensional diffractive grating modulator having three rows of linear diffractive grating modulators. Only the small central flat regions can be used for diffracting waves, therefore severely reducing the fill factor.